

Title (en)

Grindstone contact sensing method and its device and honing method and honing machine

Title (de)

Schleifsteinkontaktfühlverfahren und Vorrichtung und Honverfahren und Honmaschine

Title (fr)

Procédé de détection de contact de meule et son dispositif et procédé et machine d'affûtage

Publication

EP 2123399 A3 20130904 (EN)

Application

EP 09251169 A 20090423

Priority

JP 2008133971 A 20080522

Abstract (en)

[origin: EP2123399A2] A grindstone contact sensing technology capable of sensing the contact position of the honing grindstone with the inner circumference of the work at high precision. A servo motor (16) for driving the spindle rotation, and a servo motor (37) for driving the depth of cut are provided and used respectively as spindle rotation drive source for rotating and driving the rotary spindle (2) having the honing tool (1) and depth-of-cut drive source for moving the honing grindstone (10) at a specified depth of cut, and the contact position of the honing grindstone (10) with the inner circumference (Wa) of the work (W) is sensed from various electrical information (rotating speed, torque, current value, stagnant pulses, etc.) obtained from the operations of both the servo motors (16, 37).

IPC 8 full level

B24B 33/02 (2006.01); **B24B 33/06** (2006.01); **B24B 47/22** (2006.01); **B24B 49/10** (2006.01)

CPC (source: EP US)

B24B 33/02 (2013.01 - EP US); **B24B 33/06** (2013.01 - EP US); **B24B 47/22** (2013.01 - EP US); **B24B 49/10** (2013.01 - EP US); **G05B 2219/37405** (2013.01 - EP US)

Citation (search report)

- [XAY] JP 2003170345 A 20030617 - NISSHIN SEISAKUSHO KK
- [Y] US 6233497 B1 20010515 - KACHI MITSUYASU [JP], et al
- [AD] JP 2005262385 A 20050929 - TOYODA MACHINE WORKS LTD

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DE202017000022U1; WO2016131735A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

EP 2123399 A2 20091125; **EP 2123399 A3 20130904**; CN 101585165 A 20091125; CN 101585165 B 20131030; JP 2009279705 A 20091203; JP 5260139 B2 20130814; KR 101573350 B1 20151201; KR 20090122117 A 20091126; US 2009291619 A1 20091126; US 8162722 B2 20120424

DOCDB simple family (application)

EP 09251169 A 20090423; CN 200910141133 A 20090522; JP 2008133971 A 20080522; KR 20090038242 A 20090430; US 43467209 A 20090503